

**ABSTRACT**

Control system for devices such as an audio reproduction system, an actuator device, an electromechanical device and a telephony device. The system includes control circuitry  
5 which receives an input signal and a signal indicative of a position of a portion of the controlled apparatus. The control circuit provides an output signal to the controlled apparatus to affect an operation of the controlled apparatus. The output signal provides control of the apparatus to compensate for one or more of: motor factor; spring factor; back electromotive force; and impedance of a coil in a driver of the controlled apparatus. The signal indicative of  
10 position is derived by one or more position indicator techniques such as an infrared LED and PIN diode combination, position dependent capacitance of one portion of the controlled apparatus with respect to another portion of the controlled apparatus, and impedance of a coil in the controlled apparatus.